Patterns and Trends of Drug Abuse in the Baltimore/Maryland/Washington, DC, Metropolitan Area—Epidemiology and Trends: 2002–2013

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ABSTRACT

The two key findings in the Baltimore/Maryland/Washington, DC, area involved heroin and synthetic cannabinoids. The number of primary treatment enrollments and the number of heroin-related intoxication deaths in Maryland increased in 2012 and 2013. Seizures and poison control center calls involving synthetic cannabinoids increased across the region in 2012, and treatment enrollments mentioning synthetic cannabinoids increased in Maryland in 2013. Throughout the Washington, DC, and Maryland region, cocaine, marijuana, heroin, and other opioids continued to be the primary illicit drug problems in 2013. However, current trends in the indicators monitored for these drugs were mixed. In Washington, DC, in 2013, cocaine/crack, marijuana, and heroin continued to be the primary illicit drug problems. Cocaine remained one of the most serious drugs of abuse, as evidenced by the fact that more adult arrestees tested positive for cocaine than for any other drug, and more National Forensic Laboratory Information System (NFLIS) reports were positive for cocaine than for any drug other than marijuana/cannabis. However, the percentage of adult arrestees testing positive for cocaine (14 percent) continued to decrease in 2013 and was lower than at any time since testing began. In comparison, the percentage testing positive for opiates (7 percent) and PCP (phencyclidine, 10 percent) remained about the same. The percentage of reports among drug items seized and analyzed by the NFLIS that were positive for cocaine increased slightly to 17 percent in 2013 after decreasing steadily from 2009 to 2012. The percentage of positive reports for marijuana/cannabis also increased, to 34 percent. Synthetic cannabinoids and synthetic cathinones first began to appear in 2010, and the number of reports among analyzed drug items identified as these substances increased sharply, from 1 in 2010 to 33 in 2012 for synthetic cannabinoids and from 13 to 114 for synthetic cathinones. However, this trend reversed in 2013, as the number of drug reports positive for both synthetic cannabinoids and synthetic cathinones decreased to 6 and 58, respectively. During 2013, juvenile arrestees were more likely to test positive for marijuana (40 percent) than for any other drug, but the percentage testing positive for marijuana in 2013 was the lowest since 1993. The District of Columbia Pretrial Services Agency began to test some adult and juvenile arrestee specimens for suspected use for synthetic cannabinoids in November 2013. From January through April 2014, the most frequently found synthetic cannabinoid was UR-144. In Maryland, primary enrollments to certified publicly funded treatment programs most frequently involved alcohol, heroin,

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marijuana, crack/other cocaine, and other opiates. Enrollments decreased by 8 percent in 2013 statewide and by 4.5 percent in Baltimore City. However, the percentage of primary treatment enrollments involving heroin increased statewide but not in Baltimore City. In Baltimore City, approximately one-half of enrollments involved a primary heroin mention in 2013. Baltimore City still accounted for nearly one-half of statewide heroin enrollments (47 percent) and nearly one in three of all enrollments. Drug intoxication deaths increased in Maryland from 2010 to 2012. Heroin-related intoxication deaths increased by 58 percent from 2011 to 2012, while cocaine-related intoxication deaths remained about the same; prescription opioid-related deaths decreased by 12 percent. In Baltimore City, heroin-related intoxication deaths increased by 68 percent from 2011 to 2012, while cocainerelated intoxication deaths increased by 13 percent, and prescription opioid-related deaths decreased by 16 percent. NFLIS results were relatively stable in Maryland, but they were mixed in Baltimore City. The percentage of reports positive for heroin among all drug items analyzed by NFLIS laboratories for Maryland and Baltimore City remained about the same in 2013. Approximately three-quarters of the heroin reports (78 percent) were from Baltimore City. Cocaine and marijuana/cannabis accounted for approximately 68-69 percent of the positive NFLIS reports in Baltimore City and Maryland. The percentage of reports positive for cocaine among all items analyzed remained about the same in Baltimore City, while the percentage of reports positive for marijuana/cannabis decreased slightly. Synthetic cathinones first appeared in reports among drug items analyzed by NFLIS laboratories in Maryland in 2010 and in Baltimore City in 2011, and synthetic cannabinoids first appeared among NFLIS reports in Maryland in 2010. Both increased sharply from 2010 to 2012—the number of reports involving synthetic cannabinoids increased from 43 in Maryland in 2010 to 897 in 2012, and reports for synthetic cathinones rose from 9 in 2010 to 444 in 2012. In 2013, however, reports positive for synthetic cannabinoids stayed about the same, and reports positive for synthetic cathinones decreased slightly. The most frequently found synthetic cannabinoid in Maryland was XLR-11 and the most frequently found synthetic cathinone was methylone.

INTRODUCTION

This report addresses drug trends in both Maryland (including Baltimore City) and Washington, DC. It is organized to provide area descriptions and drug use overviews for both areas. For each drug assessed in the Drug Abuse Patterns and Trends section, a region-wide overview is provided, followed by data specific to each jurisdiction.

Area Descriptions

Washington, DC (the District), a 68-square mile area, shares boundaries with the States of Maryland and Virginia. The Nation's Capital is home to approximately 632,323 people residing in 8 wards; 18.2 percent live below the Federal poverty level. Slightly more females (53 percent) than males live in Washington, DC. Approximately one-half (49.5 percent) of the District's population are African-American, and 10 percent are Hispanic. Approximately 83 percent of the population in Washington, DC, are age 18 and older. Approximately 17 percent of residents are younger than 18, and 11 percent are 65 and older. More than one-half (53 percent) of adults age 25 or older have at least a bachelor's degree. Approximately two-thirds (69 percent) of the population age 16 and older are

in the labor force. The unemployment rate is approximately 10 percent. Approximately 18 percent live below the Federal poverty level. Approximately 15 percent of all households and 43 percent of households with children younger than 18 receive food stamps (U.S. Bureau of the Census, American Community Survey, 2012).

The State of Maryland is home to approximately 5,884,563 people residing in 24 jurisdictions. The State has slightly more females than males, and the majority of the State's population is White (58 percent). Approximately 29 percent of Maryland's population are African-American; 9 percent are Hispanic or Latino; and 5.8 percent are Asian. Approximately three-quarters (77.2 percent) of the State's population are age 18 and older, and approximately 13 percent of Maryland's population are 65 and older. More than three-quarters (89.1 percent) of the State's residents are high school graduates or higher, and more than one in three (36.9 percent) have a bachelor's degree or higher. Approximately 69 percent of the State's population age 16 and older are in the labor force. The unemployment rate is approximately 8.3 percent. Approximately 1 in 10 (10.3 percent) live below the Federal poverty level. Approximately 11 percent of all households and 53 percent of households with children younger than 18 receive food stamps (U.S. Bureau of the Census, American Community Survey, 2012).

Baltimore City is home to 621,342 residents; the majority are female (53 percent) and African-American (63.6 percent). Approximately three-quarters (78.5 percent) of the city's population are age 18 and older, and approximately 12 percent are 65 and older. More than three-quarters (80.7 percent) of the city's residents are high school graduates or higher, and more than one in four (26.9 percent) have a bachelor's degree or higher. Approximately 62 percent of the city's population age 16 and older are in the labor force. The unemployment rate is approximately 15.5 percent. Approximately one in four residents (24.8 percent) live below the Federal poverty level. Approximately 26 percent of all households and 46 percent of households with children younger than 18 receive food stamps (U.S. Bureau of the Census, American Community Survey, 2012).

Regional Drug Use Overview

Throughout the Washington, DC, and Maryland region, cocaine, marijuana, and heroin continued to be the primary illicit drug problems in 2013. However, current trends in the indicators monitored for these drugs were mixed. In general, indicators for heroin were increasing across the region. Statewide heroin indicators for Maryland, such as primary treatment enrollments, National Forensic Laboratory Information System (NFLIS) reports identified as heroin, and intoxication deaths, showed increases. In Baltimore City, however, heroin indicators were more stable. Treatment enrollments mentioning cocaine in Maryland decreased, but other cocaine indicators across the region remained stable. Synthetic cannabinoid and synthetic cathinone indicators (NFLIS reports, poison control center exposure calls, and High Intensity Drug Trafficking Area [HIDTA] data) increased sharply across the region through 2012, but NFLIS reports and poison control center exposure calls declined in 2013. Indicators for other opioids, which had been increasing, were mixed in 2012 and in 2013.

Washington, DC/Baltimore HIDTA Region Overview: The Washington/Baltimore (W/B) HIDTA includes Washington, DC, and approximately 25 jurisdictions in Maryland and Virginia. Heroin seizures across the region by W/B HIDTA initiatives increased from 2012 to 2013, while marijuana and prescription opioid seizures decreased. Seizures of cocaine/crack remained about the same.

Seizures of synthetic cannabinoids by W/B HIDTA initiatives nearly quadrupled from 165 to 634 kilograms from 2011 to 2012. In addition, 10,775 dosage units were seized in 2012. Seizures increased sharply again in 2013 to 944 kilograms. The majority of synthetic cannabinoid seizures in 2012 and 2013 were in the Baltimore metropolitan region, which accounted for more than 70 percent of the kilograms of synthetic cannabinoids seized.

Washington, DC: The primary indicators assessed in this report for Washington, DC, are arrestee urinalysis results and law enforcement seizures. Arrestee urinalysis results from the Pretrial Services Agency for the District of Columbia indicate that adult arrestees were most likely to test positive for cocaine, and juvenile arrestees were most likely to test positive for marijuana, but the percentages testing positive continued to decrease in 2013. In fact, the percentage of adult arrestees testing positive for cocaine reached the lowest point since testing began in 1984. The most frequently identified substances in NFLIS reports among drug items seized and analyzed in forensic laboratories in Washington, DC, in 2013 were marijuana/cannabis, cocaine, and "possible levamisole." From 2009 to 2013, the percentage of reports positive for marijuana/cannabis increased. The percentage of reports positive for cocaine decreased from 2009 to 2012 and remained about the same in 2013. The percentage of reports positive for heroin stayed about the same throughout this time period. The percentage of reports positive for "possible levamisole" has been decreasing since 2011. PCP (phencyclidine) was more likely to be found in Washington, DC, than in other parts of the region, and the percentage of NFLIS reports among analyzed items testing positive for PCP increased. The percentage of NFLIS reports positive for synthetic cathinones and synthetic cannabinoids increased in 2012 but declined in 2013.

Maryland: The primary indicators assessed in this report for Maryland are enrollments in publicly funded treatment programs, intoxication deaths, and law enforcement seizures. Statewide, public treatment enrollments most frequently involved alcohol, heroin, marijuana, and cocaine as the primary drugs mentioned in 2013. Increases in enrollments occurred for primary mentions of heroin, while primary mentions of all other drugs decreased. Intoxication deaths in Maryland increased in 2012, but they appeared to decrease in 2013. Intoxication deaths related to heroin, however, increased in 2012 and again in 2013 (from *n*=247 in 2011 to *n*=464 in 2013). The most frequently identified drug reports among items seized and analyzed in NFLIS laboratories in 2013 in Maryland were marijuana/cannabis, cocaine, and heroin. From 2009 to 2012, the percentage of reports positive for cocaine decreased steadily, and the percentage of reports positive for marijuana/cannabis increased. The percentage of reports positive for heroin remained about the same from 2010 to 2013. The percentage of reports positive for the synthetic cathinones and synthetic cannabinoids increased sharply from 2010 to 2012 and then declined in 2013.

Baltimore City: The primary indicators assessed in this report for Baltimore City are enrollments in publicly funded treatment programs, intoxication deaths, and law enforcement seizures. Baltimore City enrollments in publicly funded treatment programs in 2013 were more likely to involve heroin as the primary drug mentioned than any other drug, but the total number remained about the same as in 2012. Primary mentions of other opiates/opioids (other than heroin) continued to increase. Baltimore City accounted for nearly one-half (47 percent) of primary heroin enrollments and approximately one-third (37 percent) of primary cocaine/crack enrollments in the State. The number of heroin-related intoxication deaths increased in 2012 and 2013 after decreasing in 2010 and 2011. One in three heroin-related intoxication deaths in Maryland in 2013 occurred in Baltimore City. The most frequently identified drugs in NFLIS reports among drug items seized and analyzed

in Baltimore City in 2013 were marijuana/cannabis, cocaine, and heroin. From 2009 to 2013, the percentage of reports positive for marijuana/cannabis increased, while the percentage of reports positive for cocaine decreased. The percentage of reports positive for heroin remained stable in 2013 after decreasing in 2010 and 2011.

Data Sources

A number of sources were used to obtain comprehensive information regarding drug use trends and patterns in Maryland and Washington, DC. Data for this report were obtained from the sources listed below:

- **Test results on drug items** analyzed by local crime laboratories were obtained from NFLIS for calendar years 2009–2013 (exhibits 1a, 1b, and 1c). NFLIS methodology allows for accounting of up to three drugs per item submitted for analysis. The data presented are a combined count including primary, secondary, and tertiary reports for each drug item for the selected drugs.
- **Drug-related death data** for Maryland were obtained from the *Drug and Alcohol-Related Intoxication Deaths Quarterly Report* released by the State Department of Health and Mental Hygiene in April 2014. Exhibits 2a, 2b, and 2c show drug intoxication death data in Baltimore and in Maryland.
- Arrestee demographic and urinalysis data for Washington, DC, were provided by the Pretrial Services Agency for the District of Columbia for adult arrestees (which include all willing adult arrestees [*n*=16,621 in 2013] and juvenile arrestees [*n*=1,677 in 2013]) for 1984 through 2013 (exhibits 3a, 3b, 4a, and 4b).
- Treatment data for Maryland and Baltimore City were provided by the Maryland Alcohol and Drug Abuse Administration (ADAA) (exhibits 5a and 5b). It is important to note that the Maryland ADAA changed its treatment data reporting, and now reports treatment enrollments rather than admissions. Comparisons across years with data within this report are appropriate, but data in this report should not be compared with data in reports published prior to 2011. It should be noted that to the extent that waiting lists exist, the number of treatment enrollments may be an indicator of treatment capacity rather than demand. An enrollment in the treatment data does not necessarily represent a unique individual, since some individuals are enrolled to treatment more than once in a given period.
- Drug seizure data and trafficking trends were obtained from the W/B HIDTA Threat Assessment report for program year 2012, the 2008 to 2013 annual reports, and a special data run provided by the W/B HIDTA staff. The W/B HIDTA region includes Washington, DC, and approximately 25 jurisdictions in Maryland and Virginia. Where possible, specific findings for Maryland and Washington, DC, are provided in addition to general findings for the entire W/B HIDTA region.
- **Poison control center data** for synthetic cannabinoids and synthetic cathinones for 2011–2013 came from the Maryland Poison Center and the National Poison Center for Washington, DC.
- Census data for Maryland, Baltimore City, and Washington, DC, were derived from the U.S. Census Bureau, American Community Survey, 2012.

 Additional information came from several sources. Data on the human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) were provided by the Maryland Prevention and Health Promotion Administration's HIV/AIDS Epidemiological Profiles and the Washington, DC, Department of Health's Annual Epidemiology and Surveillance Report. Retail distribution data were derived from the Drug Enforcement Administration (DEA)'s Automation of Reports and Consolidated Orders System (ARCOS) (exhibits 6a, 6b, 7a, 7b, 7c, 8a, and 8b).

DRUG ABUSE PATTERNS AND TRENDS

Cocaine/Crack

Cocaine continued to be a primary drug of concern across the region. Kilograms of cocaine seized by W/B HIDTA initiatives in Washington, DC, Maryland, and Virginia increased from 169 kilograms in 2009 to 308 kilograms in 2012 and remained about the same in 2013 (2013 Annual Report for the W/B HIDTA). Cocaine was the second most frequently seized drug by HIDTA initiatives after marijuana. Cocaine accounted for more adult arrestee urinalysis positive drug tests in the District than any other drug in 2013. However, several key indicators across the region appeared to indicate a decrease in negative consequences from the use of cocaine.

Data for 2013 showed that 17.1 percent of primary, secondary, and tertiary drug reports among drug items seized and analyzed in NFLIS laboratories in the District tested positive for cocaine, while 15.4 percent of the drug reports identified among drug items analyzed in Maryland and 26.5 percent of the drug reports among drug items analyzed in Baltimore City tested positive for cocaine (exhibits 1a and 1b). Cocaine was the second most frequently detected drug after marijuana/cannabis in all three areas. The percentage of reports testing positive for cocaine decreased from 2011 to 2012 in all three jurisdictions. The percentage of reports positive for cocaine in Maryland continued to decrease in 2013, but the proportions remained about the same in Baltimore and in the District (exhibits 1a and 1b). There was a decline in the amount of powder cocaine seized by HIDTA initiatives throughout the W/B HIDTA region from 2007 to 2009, followed by increases in 2010–2012. The total amount seized (308 kilograms) in 2013 was about the same as the amount seized in 2012 (W/B HIDTA special data run).

In the District, reports from the Pretrial Services Agency indicated that the percentages of adult arrestees testing positive by urinalysis for cocaine continued to decrease in 2013 (from 41.0 percent in 2006 to 14.3 percent in 2013) to the lowest point since testing began in 1984 (exhibits 3a and 3b). The percentage of juveniles remained low and steady from 2009 through 2011 at approximately 1 percent. In 2012, this proportion decreased to a mere 0.2 percent and remained at this level in 2013 (exhibits 4a and 4b).

In Maryland, the total number of drug-related intoxication deaths fluctuated between 2007 and 2010 then increased by approximately 32 percent from 2010 to 2013 (exhibit 2a). The number of cocaine-related intoxication deaths statewide increased from 135 in 2010 to 153 in 2012 and remained about the same in 2013 (exhibit 2b). Cocaine-related intoxication deaths increased in Baltimore City from 48 in 2011 to 59 in 2012 and then decreased to 47 in 2013 (exhibit 2c). Baltimore City accounted for 29 percent of all intoxication deaths and 30 percent of cocaine-related intoxication deaths in Maryland in 2013. Crack mentions as the primary drug problem by enrollments in certified publicly funded Maryland alcohol and drug abuse treatment programs decreased steadily from 2007 to 2013. Primary

crack mentions at enrollment also decreased in Baltimore City from 2008 to 2013. In contrast, primary mentions for other cocaine increased by approximately 12 percent in Baltimore City and by 14 percent statewide from 2010 to 2011 after decreasing steadily from 2006 to 2010. From 2011 to 2013, however, other cocaine mentions decreased by approximately 35 percent. Baltimore City residents accounted for more than one-third (37 percent) of the crack and other cocaine enrollments in the State in 2013 (exhibits 5a and 5b).

Heroin

In 2012, heroin replaced crack cocaine as the drug identified by law enforcement and treatment providers as the most prevalent drug threat in the W/B HIDTA region (2012 Annual Report for the W/B HIDTA) and continued to be considered a primary drug threat in 2013 (2013 Annual Report for the W/B HIDTA). Heroin represented one of the three primary illicit drugs of abuse in Maryland and in the District, along with cocaine and marijuana. In general, heroin was more prevalent in Baltimore City, while cocaine was more prevalent in the District. Although the amount of heroin seized by HIDTA initiatives in Washington, DC, Maryland, and Virginia fluctuated from 2008 to 2013, there was an increase from a low of 67 kilograms in 2011 to a high of 98 kilograms in 2013—the largest amount ever seized by the W/B HIDTA (2013 Annual Report for the W/B HIDTA). Although nearly three-quarters of the individual heroin seizures occurred in Maryland, almost one-half of the heroin seized was in Virginia (2013 Annual Report for the W/B HIDTA).

In Washington, DC, 6.7 percent of primary, secondary, and tertiary drug reports among drug items seized and analyzed by NFLIS laboratories tested positive for heroin, while 13.3 percent of the drug reports identified among drug items analyzed in Maryland and 21.9 percent in Baltimore City tested positive for heroin. This is about the same as the percentages in 2012. Heroin was the third most frequently found drug, after marijuana/cannabis and cocaine, in Maryland and Baltimore City, and it was the fifth most frequently found drug in Washington, DC. The proportion of reports among analyzed drug items testing positive for heroin slightly increased from 2011 to 2012 in all three jurisdictions (exhibits 1a and 1b). The percentage identified in Baltimore City was more than three times as high as in Washington, DC.

Reports from the Pretrial Services Agency indicated that the percentage of adult arrestees in Washington, DC, testing positive for opiates decreased steadily from 10.0 percent in 2008 to 7.0 percent in 2012. The percentage testing positive stayed about the same in 2013 (7.2 percent) (exhibits 3a and 3b). Juvenile arrestees were not tested for opiates during this time period.

In Maryland, heroin-related intoxication deaths increased by 59 percent, from 247 in 2011 to 392 in 2012 (exhibit 2b), and they continued to increase in 2013 (to n=464). Baltimore City experienced an even larger increase (by 72 percent), from 76 heroin-related deaths in 2011 to 131 deaths in 2012 (exhibit 2c), and such deaths also continued to increase in 2013 (to n=150). In 2013, approximately 32 percent of the heroin-related intoxication deaths in the State occurred in Baltimore City, more than in any other jurisdiction.

Heroin was the second most frequently mentioned primary drug problem among publicly funded Maryland treatment enrollments, after alcohol, from 2006 through 2012. In 2013, primary heroin mentions surpassed alcohol mentions for the first time (exhibit 5a). Heroin mentions as the primary drug problem by enrollments in certified publicly funded Maryland alcohol and drug abuse treatment

programs increased by 30 percent from 2011 to 2013. In 2013, there were 15,906 enrollments for heroin in Maryland. From 2006 to 2013, enrollments involving young adults (age 21–30) and Whites increased, while enrollments involving adults older than 30 and African-Americans decreased. These enrollments were highest in Baltimore City in 2013, where there were 7,447 enrollments (exhibit 5b). Baltimore City enrollments decreased steadily from 2008 to 2011, increased in 2012, and remained about the same in 2013. Approximately one-half (49.5 percent) of Baltimore City enrollments mentioned heroin as the primary substance of abuse, and Baltimore City residents accounted for 47 percent of the enrollments in the State. A special assessment of treatment enrollments in State-supported substance use disorder treatment programs conducted by the Maryland ADAA found that Baltimore City was the only jurisdiction (of 24) in the State to show a decrease in the percentage of heroin-related enrollments among total enrollments from 2008 to 2013. Further, the percentage from rural areas increased from 10.9 percent in 2008 to 24.2 percent in 2013, while the percentage from Baltimore City decreased from 64.2 percent in 2008 to 47.9 percent in 2013.

Other Opioids

In 2013, W/B HIDTA initiatives in Washington, DC, Maryland, and Virginia seized more than 1,700 dosage units of oxycodone and hydrocodone products and 10.9 kilograms of tramadol.

Oxycodone, methadone, and buprenorphine combined accounted for approximately 4.3 percent of the drug reports among drug items seized and analyzed by NFLIS laboratories in 2013 in Baltimore City and for 1.5 percent in Washington, DC. The number of oxycodone reports increased in Washington, DC, from 2011 to 2012, while the number of buprenorphine reports slightly decreased. The number of methadone reports stayed about the same in 2011 and 2012. In 2013, however, there were no reports positive for methadone in Washington, DC, and the numbers of reports positive for oxycodone and buprenorphine decreased. While none of these drugs were among the top 10 drug reports in Washington, DC, in 2013, all 3 were among the top 10 reports in Baltimore City. The percentage of reports positive for buprenorphine remained about the same in Baltimore and in Maryland in 2013, and the percentage positive for methadone remained at less than 1 percent. The percentage of oxycodone reports among analyzed drug items in Baltimore City increased slightly in 2013. Baltimore City accounted for 32 percent of the oxycodone reports and 43 percent of the buprenorphine reports in Maryland in 2013, which represented an increase from 2012.

The DEA's ARCOS reports showed that the retail distribution of oxycodone and buprenorphine in Washington, DC, Baltimore City, and Baltimore County (212 ZIP Codes™ only) increased sharply from 2000 to 2011 (exhibits 6a and 6b). The retail distribution of buprenorphine in Washington, DC, continued to increase in 2012 and 2013 (it increased by 17 percent from 2012 to 2013). In Baltimore City and County, buprenorphine distribution continued to increase in 2012 and remained about the same in 2013. However, in both of these areas, the distribution of oxycodone decreased from 2012 to 2013. Oxycodone distribution more than doubled in Washington, DC, from 31,964 grams in 2000 to 74,255 grams in 2010, and it continued to increase in 2011 to 83,657 grams. In 2012, the distribution decreased slightly to 83,436 grams, and this decrease continued in 2013, to 74,838 grams. The distribution of oxycodone more than tripled in Baltimore City and County, from 141,802 grams in 2000 to 462,104 grams in 2011. In 2012, oxycodone distribution decreased to 451,522 grams, followed by another decrease to 400,048 grams in 2013. Buprenorphine distribution, in contrast, increased from 224 grams in 2005 to 4,028 grams in Washington, DC, in 2013, and from 2,623 grams in 2005 to 29,340 grams in 2012 in Baltimore City and County. Buprenorphine distribution decreased to 28,825

grams in Baltimore City and County in 2013. Both of these drugs were distributed in higher quantities in Baltimore City and County than in Washington, DC. Oxycodone was distributed in higher quantities than buprenorphine in both cities.

In Maryland, enrollments to publicly funded drug and alcohol treatment programs mentioning other opiates/opioids as the primary drug problem more than tripled, from 1,624 in 2006 to 5,349 in 2010. Enrollments continued to increase in 2011 (n=6,395) and in 2012 (n=6,785), but they decreased by 22 percent in 2013 (n=5,270) (exhibit 5a). These enrollments nearly doubled in Baltimore City from 2006 to 2010 and continued to increase in 2011, in 2012, and in 2013 (n=864) (exhibit 5b). Approximately 16 percent of enrollments involving other opiates/opioids in the State were Baltimore City residents. The number of prescription opioid-related intoxication deaths in Maryland statewide has been higher than the number of cocaine-related intoxication deaths since 2007. However, the number of prescription opioid-related intoxication deaths in Maryland decreased by 9 percent from 342 in 2011 to 311 in 2012 (exhibit 2b) and remained about the same in 2013 (n=316). Nearly one-half of these deaths (44 percent, n=138) were methadone related, and 27 percent were oxycodone related. Both methadone- and oxycodone-related intoxication deaths decreased from 2012 to 2013, but the number of fentanyl-related intoxication deaths doubled from 29 in 2012 to 58 in 2013. The Maryland Department of Health and Mental Hygiene reported that this was due to a "sudden wave late in the year" in intoxication deaths involving nonpharmaceutical fentanyl. One-half of the fentanyl-related intoxication deaths in 2013 were related to nonpharmaceutical fentanyl. In Baltimore City, prescription opioid-related intoxication deaths decreased from 82 in 2011 to 74 in 2012, but they increased again in 2013 to 86. Baltimore City accounted for a higher percentage of these deaths (27 percent) in Maryland than in any other jurisdiction in 2013 (exhibit 2c). Methadone- and oxycodone-related intoxication deaths did not change much from 2012 to 2013 in Baltimore, but fentanyl-related intoxication deaths increased from 2 in 2011 to 12 in 2013. Baltimore City was 1 of only 2 jurisdictions to have more than 10 fentanyl-related intoxication deaths in 2013.

Marijuana

Marijuana was widely available in the District and in Maryland. It was the most frequently seized drug by W/B HIDTA initiatives. According to the W/B HIDTA 2012 Annual Report, seizures of marijuana in Washington, DC, Maryland, and Virginia almost doubled in quantity from 2011 to 2012. However, a special data run in 2014 indicated that marijuana seizures decreased from approximately 8,880 kilograms of marijuana and marijuana plants in 2012 to approximately 4,963 kilograms in 2013. More than one-half of the marijuana seized in 2013 was in the Baltimore metropolitan region.

NFLIS data for 2013 showed that marijuana/cannabis was the most frequently identified drug among drug reports from items seized and analyzed in Washington, DC, Baltimore City, and Maryland. Approximately 34 percent of the drug reports identified among drug items analyzed by NFLIS laboratories in Washington, DC, tested positive for marijuana/cannabis, while 42 percent of the reports identified among drug items analyzed in Baltimore City tested positive for marijuana/cannabis (exhibits 1a and 1b). This represented a steady increase in Washington, DC, from 2009 and a decrease in Baltimore City from 2012 to 2013. In Maryland, slightly more than one-half of reports from drug items analyzed (52 percent) were positive for marijuana/cannabis; this proportion was similar to the percentages in 2011 and 2012.

The Pretrial Services Agency does not report on adult arrestee marijuana tests, but marijuana was the most frequently found drug among juveniles. The proportion of juveniles testing urinalysis positive for marijuana has fluctuated in recent years. The percentage increased from 2004 to 2007, after decreasing steadily for 5 years, then decreased slightly in 2008 and 2009, and increased again in 2010. This proportion once again decreased from 2011 to 2013 to approximately 39 percent (exhibits 4a and 4b). This is the lowest percentage positive reported since 1993.

Primary marijuana enrollments to certified publicly funded Maryland treatment programs decreased by 12 percent from 11,246 enrollments in 2012 to 9,920 in 2013 after increasing steadily from 2006 to 2012 (exhibit 5a). Marijuana enrollments also increased in Baltimore City from 2007 to 2012 (from n=1,519 to n=2,471 enrollments) and remained about the same in 2013 (n=2,460) (exhibit 5b).

PCP (Phencyclidine)

PCP seizures by W/B HIDTA initiatives in Washington, DC, Maryland, and Virginia increased by more than 50 percent from 43 kilograms in 2012 to 67 kilograms in 2013. All but one small seizure was seized in Washington, DC, or in Prince George's County, Maryland. Prince George's County accounted for nearly three-quarters of the seizures (70 percent) and two-thirds of the quantity (2013 Annual Report for the W/B HIDTA). NFLIS data showed that the proportion of reports in Washington, DC, testing positive for PCP among drug items analyzed in NFLIS laboratories increased from 3.6 percent in 2009 to 6.9 percent in 2013. PCP was the fourth most frequently found drug in Washington, DC, reports in 2013. However, very few PCP reports were identified among analyzed drug items in Baltimore City or in Maryland in any of these years (0.6 percent or less).

Data from the Pretrial Services Agency showed frequent fluctuations in PCP urinalysis positives among adult arrestees in Washington, DC, with a peak in 1987 and lower peaks in 1995 and 2002 (exhibits 3a and 3b). Positive tests for PCP among adult arrestees then increased from 6.2 percent in 2004 to 10.5 percent in 2011, and they have remained fairly stable since then. In 2013, 10.0 percent of adults tested urinalysis positive for PCP. Trend data for 1987 to the present indicated that PCP use among the juvenile arrestee population peaked in the same years as the adults and then leveled off at approximately 2–3 percent each year through 2008. The proportion has decreased again in recent years and hit an all-time low in 2013 of 0.2 percent (exhibits 4a and 4b).

Primary treatment enrollments involving PCP in Maryland—although much lower than those for other drugs—more than doubled between 2006 (*n*=247) and 2012 (*n*=587) and then decreased to 479 in 2013 (exhibit 5a). Enrollments involving PCP in Baltimore City remained low—from 3 to 12 each year from 2006 to 2013 (exhibit 5b).

Emerging Drugs of Abuse

Phenylimidothiazole Isomer Undetermined (Possible Levamisole)

NFLIS data for Washington, DC, indicated an increase in the prevalence of drugs and other substances used to cut cocaine and heroin. The most frequently found is described by NFLIS as "possible levamisole." Levamisole is used as a dewormer in animals such as cattle, sheep, pigs, and tropical fish. "Possible levamisole" ranked third among the top 10 drug reports identified among drug items analyzed by NFLIS laboratories in Washington, DC, each year, outranking heroin, from

2009 to 2013. In 2012, approximately 1 in 10 reports among analyzed drug items were positive for levamisole, and in 2013, approximately 7 percent of reports among analyzed drug items were positive for levamisole.

Synthetic Cannabinoids

Synthetic cannabinoids first appeared in Washington, DC, and Maryland in 2010. Since then, the number of NFLIS reports among drug items that were positive for synthetic cannabinoid metabolites increased sharply from 2010 to 2012 from 1 to 33 in Washington, DC, and from 43 to 897 in Maryland (exhibit 1c). The number of types of synthetic cannabinoids identified in Maryland drug reports among items analyzed in NFLIS laboratories increased from none in 2009, to 10 in 2011, and to 14 in 2012. In 2013, however, only six reports among analyzed drug items were identified as synthetic cannabinoids in Washington, DC. The number of reports identified in Maryland remained about the same in 2013, 894, as in 2012.

Seizures of "K2/Spice" in Maryland by HIDTA initiatives increased from 165 kilograms in 2011, to 634 kilograms in 2012, and to 944 kilograms in 2013. The majority of seizures in 2012 and in 2013 were in the Baltimore metropolitan region, which accounted for nearly 75 percent of the synthetic cannabinoids seized in 2013.

Two poison control centers serve Washington, DC, and Maryland. The Maryland Poison Center serves 22 of the 24 jurisdictions in Maryland. Exposure calls related to synthetic cannabinoids increased from 16 in 2010 to 222 in 2012. In 2012, calls originated from 21 jurisdictions. More than one in four calls (29 percent) originated in Baltimore City. However, in 2013, the number of calls dropped to 78, and the number of jurisdictions represented dropped to 15. As in 2012, more calls originated in Baltimore City than in any other jurisdiction, but the percentage of calls originating there decreased slightly (to 21 percent). Exposure calls reported by the National Poison Center for Washington, DC, showed a similar trend, increasing from 13 in 2010 to 54 in 2012 and then dropping to 21 in 2013.

Synthetic Cathinones

Similar to synthetic cannabinoids, synthetic cathinones (marketed as "bath salts") also first appeared in Washington, DC, and in Maryland in 2010. In Washington, DC, reports among drug items analyzed by NFLIS that were positive for synthetic cathinones increased from 13 in 2010 to 114 in 2012 and then dropped to 58 in 2013. In Maryland, there was also an increase in positive reports for synthetic cathinones among drug items analyzed in NFLIS laboratories, from 9 in 2010 to 444 in 2012 (approximately 0.6 percent of total reports in 2012). Although the percentage remained about the same in 2013 (0.7 percent), the number of reports in Maryland for synthetic cathinones decreased slightly to 430. The most frequently found synthetic cathinone in Maryland and in Washington, DC, was methylone.

Very few synthetic cathinones were seized by HIDTA initiatives in 2012 or 2013—approximately one-half to 1 kilogram each year.

Maryland Poison Center exposure calls related to synthetic cathinones first occurred in 2011 at 73 calls; the total decreased to 8 calls in 2013. The number of jurisdictions from which these calls

originated decreased from 16 in 2011 to 4 in 2013. There were no calls from Baltimore City in 2013. The National Poison Center reported seven exposure calls for Washington, DC, in 2011, none in 2012, and two in 2013.

INFECTIOUS DISEASES RELATED TO DRUG ABUSE

The DC Annual Epidemiology and Surveillance Report prepared by the Washington, DC, Department of Health indicated that the number of newly reported HIV cases in Washington, DC, decreased by 46 percent, from 1,333 in 2007 to 718 in 2011. Newly reported HIV cases among injection drug users (IDUs) and men who have sex with men (MSM)/IDUs in Washington, DC, decreased by 76 percent, from 180 in 2007 to 43 in 2011. As shown in exhibit 7a, IDUs accounted for 6 percent of new HIV diagnoses in the District in 2011. Nearly three-quarters of all new HIV diagnoses were male, and three-quarters or more were African-American each year from 2007 to 2011. The age breakdown was spread across three groups in 2011: age 20–29 (27.7 percent), age 30–39 (20.1 percent), and age 40–49 (24.0 percent) (data not shown). The total number of HIV deaths among adults and adolescents decreased from 425 in 2007 to 251 in 2011. The percentage of deaths with injection drug use or MSM/IDU as the mode of transmission decreased from 44.1 percent in 2008 to 27.9 percent in 2011. In 2011, the percentage of deaths with injection drug use or MSM/IDU as the mode of transmission was lower than the percentage with heterosexual contact as the mode of transmission (29.9 percent) (exhibit 7b). Newly reported AIDS cases, and newly reported AIDS cases with injection drug use as a mode of transmission, also decreased (exhibit 7c).

In Maryland, newly reported HIV cases decreased by 42 percent (from *n*=2,275 in 2007 to *n*=1,311 in 2011). The percentage of HIV cases related to injection drug use in Maryland decreased steadily from 1996 (50.7 percent) to 2011 (8.6 percent), but the percentage of MSM/IDU-related HIV cases fluctuated slightly between 1 and 5 percent (exhibit 8a). The percentage of new HIV diagnoses related to injection drug use continued to decrease in 2012 to 7 percent. More than two-thirds of adult/adolescent HIV diagnoses during 2011 were male (69.8 percent), three-quarters were African-American (74.8 percent), and approximately one-half were age 20–39 (51.6 percent). Data Sheets prepared by the Maryland Department of Health and Mental Hygiene Center for HIV Surveillance, Epidemiology, and Evaluation in May 2014 indicate that nearly 1 in 3 (31 percent) of new HIV diagnoses in 2012 were age 20–29, and three-quarters (76 percent) of all living adult/adolescent HIV cases as of December 21, 2012, were African-American.

One in three new adult/adolescent HIV cases were from Baltimore City in 2011. In Baltimore City in 2011, IDUs represented 11.9 percent of new HIV cases, and MSM/IDUs represented 1.1 percent (exhibit 8b). Nearly three-quarters of adult/adolescent HIV diagnoses in Baltimore City during 2011 were male (74.1 percent); more than three-quarters were African-American (84.4 percent); approximately one in three were age 20–29 (32.6 percent); and one-quarter were age 40–49 (23.9 percent).

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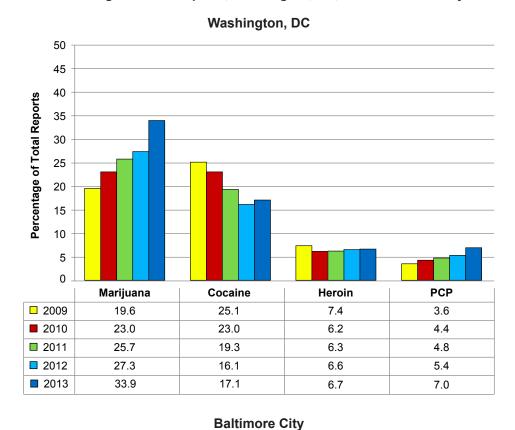
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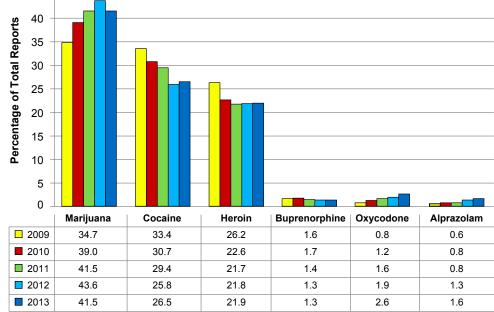
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Exhibit 1a. Percentage of Drug-Positive Reports Identified in NFLIS Analyses, for Selected Drugs, as a Percentage of Total Reports, Washington, DC,¹ and Baltimore City:² 2009–2013



50 45



¹Washington, DC: In 2009, *N*=7,618 total reports; in 2010, *N*=7,677; in 2011, *N*=6,472; in 2012, *N*=4,383; in 2013, *N*=2,619.
²Baltimore, MD: In 2009, *N*=39,278 total reports; in 2010, *N*=35,050; in 2011, *N*=31,326; in 2012, *N*=32,444; in 2013, *N*=29,852. SOURCE: NFLIS, DEA

60 Percentage of Total Reports 50 40 30 20 10 0 Marijuana Heroin Buprenorphine Cocaine Oxycodone Alprazolam **2009** 41.4 28.8 20.1 1.8 0.9 1.4 **2**010 48.5 23.0 13.6 3.5 1.3 1.6

12.0

13.3

13.3

4.0

3.7

3.9

1.6

1.8

1.9

1.4

1.6

1.5

Exhibit 1b. Percentage of Drug-Positive Reports Identified in NFLIS Analyses,¹ for Selected Drugs, as a Percentage of Total Reports, Maryland: 2009–2013

 1 In 2009, N=58,981 total reports; in 2010, N=71,579; in 2011, N=77,082; in 2012, N=76,483; in 2013, N=62,430. SOURCE: NFLIS, DEA

20.0

17.4

15.4

2011

2012

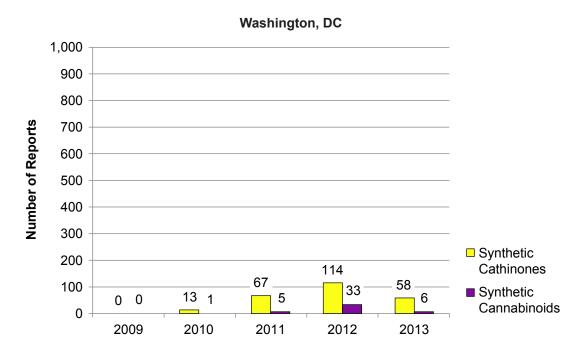
■ 2013

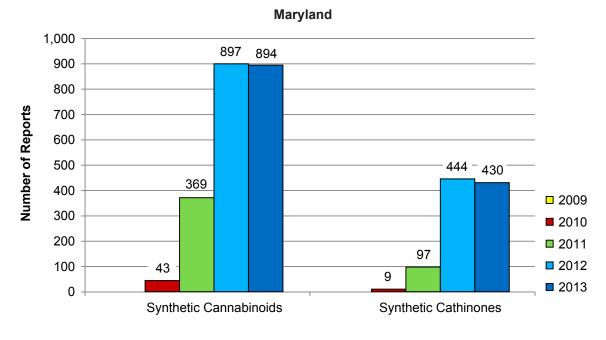
51.1

51.2

52.0

Exhibit 1c. Number of Drug-Positive Reports Identified in NFLIS Analyses, for Synthetic Cannabinoids and Synthetic Cathinones, Washington, DC,¹ and Maryland:² 2009–2013





 1 Washington, DC: in 2009, N=7,618 total reports; in 2010, N=7,677; in 2011, N=6,472; in 2012, N=4,383; in 2013, N=2,619. 2 Maryland: in 2009, N=58,981 total reports; in 2010, N=71,579; in 2011, N=77,082; in 2012, N=76,483; in 2013, N=62,430. SOURCE: NFLIS, DEA

Number of Deaths -172 -Maryland ■ Baltimore City

Exhibit 2a. Total Number of Drug-Related Intoxication Deaths, Maryland and Baltimore City: 2007–2013

SOURCE: Maryland Department of Health and Mental Hygiene, Office of the Chief Medical Examiner, Maryland, June 2014, Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2013

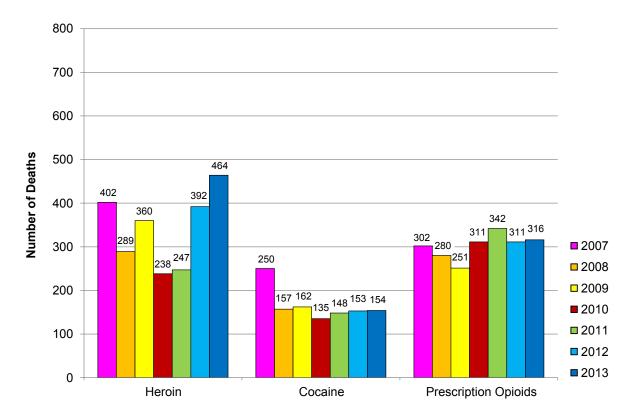


Exhibit 2b. Number of Drug-Related Intoxication Deaths for Selected Drugs, Maryland: 2007–2013

SOURCE: Maryland Department of Health and Mental hygiene, Office of the Chief Medical Examiner, Maryland, June 2014, Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2013

Number of Deaths □ 2009 60 63 61 45 48 ■ 2013 Heroin Cocaine **Prescription Opioids**

Exhibit 2c. Number of Drug-Related Intoxication Deaths for Selected Drugs, Baltimore City: 2007–2013

SOURCE: Maryland Department of Health and Mental Hygiene, Office of the Chief Medical Examiner, Maryland, June 2014, Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2013

Exhibit 3a. Percentage of Adult Arrestees Testing Positive for Selected Drugs, Washington, DC: 2000–2013

Drug	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
(N=)	(15,630)	(17,350)	(17,952)	(17,742)	(19,531)	(19,867)	(23,271)	(22,800)	(24,375)	(22,319)	(20,078)	(18,353)	(16,291)	(16,621)
Cocaine	33.6	34.2	35.2	34.8	36.6	37.3	41.0	37.2	33.0	28.7	24.0	21.5	16.1	14.3
PCP (Phen- cyclidine)	9.3	12.7	14.2	13.5	6.2	7.5	9.2	9.4	9.6	8.9	9.8	10.5	10.0	10.0
Opiates	9.5	10.5	10.5	10.0	9.8	9.3	8.9	9.1	10.0	9.2	8.3	7.9	7.0	7.2
Any Drug	43.2	46.1	48.0	47.3	43.5	44.7	48.9	48.2	44.5	39.9	36.2	34.8	29.2	28.2

SOURCE: District of Columbia Pretrial Services Agency

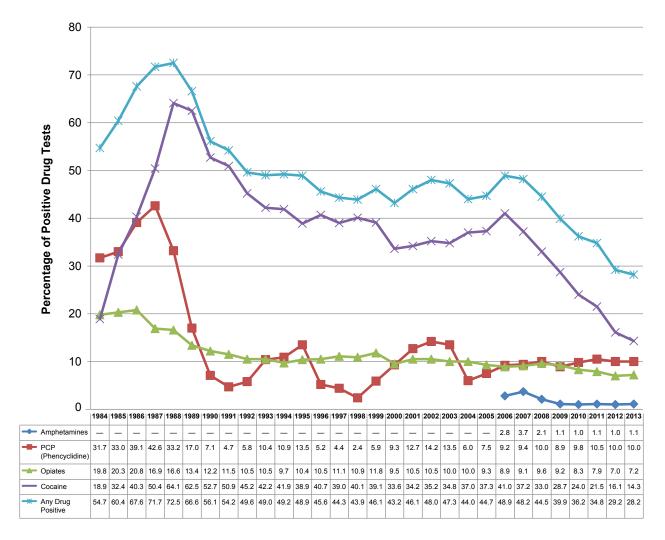


Exhibit 3b. Percentage of Adult Arrestees Testing Positive for Any Drug, Cocaine, PCP, Opiates, and Amphetamines, Washington, DC: 1984–2013¹

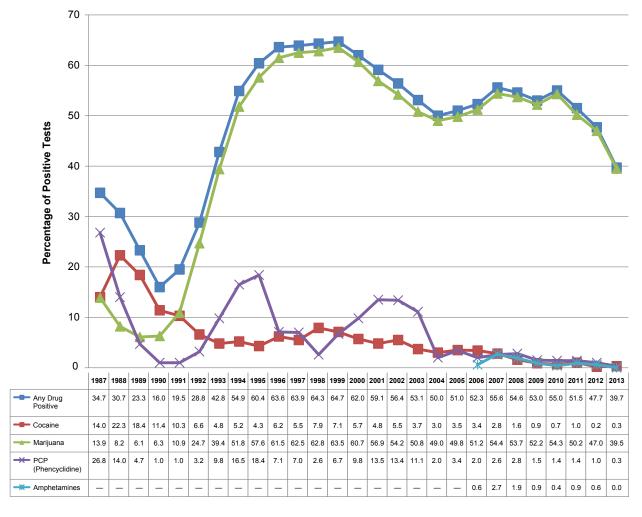
¹2006 percentage for amphetamines covers August–December only. Amphetamines are for 2006–2013 only. SOURCE: Adapted by the Center for Substance Abuse Research (CESAR) from data from the District of Columbia Pretrial Services Agency

Exhibit 4a. Percentage of Juvenile Arrestees Testing Positive for Selected Drugs, Washington, DC: 2000–2013

Drug	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
(N=)	(2,162)	(2,165)	(1,896)	(1,899)	(2,001)	(2,319)	(2,379)	(2,248)	(2,566)	(2,614)	(2,103)	(1,918)	(1,632)	(1,677)
Marijuana	60.7	56.9	54.2	50.8	49.0	49.8	51.2	54.4	53.7	52.2	54.3	50.2	47.0	39.5
Cocaine	5.7	4.8	5.5	3.7	3.3	3.5	3.4	2.8	1.6	0.9	0.7	1.0	0.2	0.2
PCP (Phen- cyclidine)	9.8	13.5	13.4	11.1	1.9	3.4	2.0	2.6	2.8	1.5	1.4	1.4	1.0	0.2
Any Drug	62.0	59.1	56.4	53.1	49.6	51.0	52.3	55.6	54.6	53.0	55.0	51.5	47.7	39.7

SOURCE: District of Columbia Pretrial Services Agency

Exhibit 4b. Percentage of Juvenile Arrestees Testing Positive for Any Drug Positive,¹ Cocaine, PCP, Marijuana, and Amphetamines, Washington, DC: 1987–2013²



¹Any drug positive includes opiates from 1987 through mid-1994 (less than 1.0 percent).

²Amphetamines testing started in August 2006 and ended in 2013 (no data reported).

SOURCE: Adapted by the Center for Substance Abuse Research (CESAR) from data from the District of Columbia Pretrial Services Agency

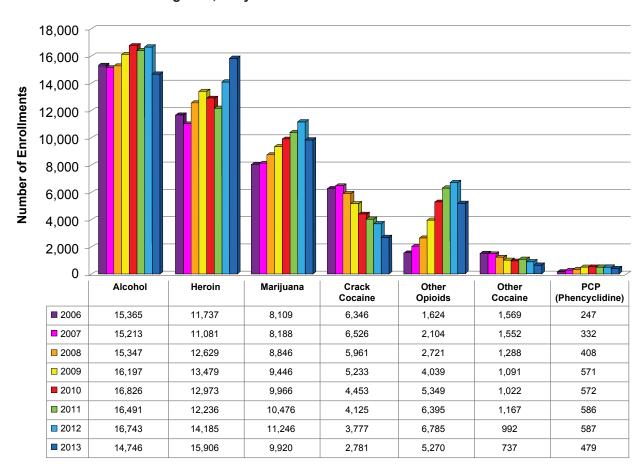


Exhibit 5a. Number of Primary Enrollments¹ to Certified Publicly Funded Alcohol and Drug Treatment Programs, Maryland: 2006–2013

 1 In 2006, N=45,554 total enrollments; in 2007, N=45,657; in 2008, N=47,848; in 2009, N=50,774; in 2010, N=52,027; in 2011, N=52,466; in 2012, N=55,499; in 2013, N=50,983.

SOURCE: Adapted by the Center for Substance Abuse Research (CESAR) from data provided by the Alcohol and Drug Abuse Administration, Department of Health and Mental Hygiene, SMART System

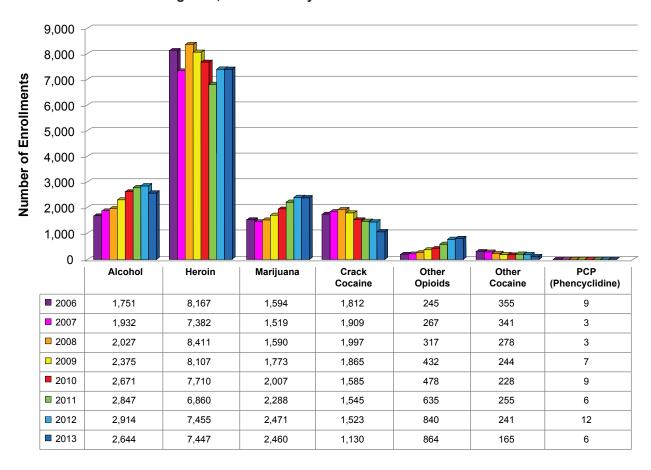
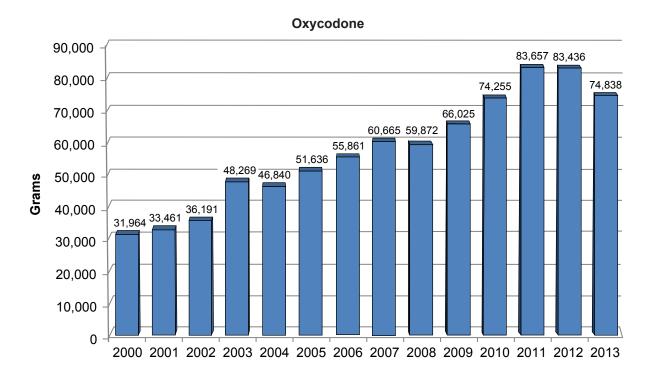


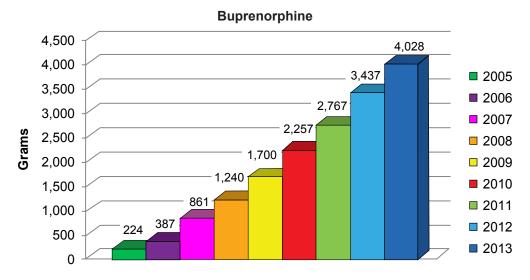
Exhibit 5b. Number of Primary Enrollments¹ to Certified Publicly Funded Alcohol and Drug Treatment Programs, Baltimore City: 2006–2013

 1 In 2006, N=14,018 total enrollments; in 2007, N=13,467; in 2008, N=14,756; in 2009, N=14,957; in 2010, N=14,857; in 2011, N=14,643; in 2012, N=15,749; in 2013, N=15,049.

SOURCE: Adapted by the Center for Substance Abuse Research (CESAR) from data provided by the Alcohol and Drug Abuse Administration, Department of Health and Mental Hygiene, SMART System

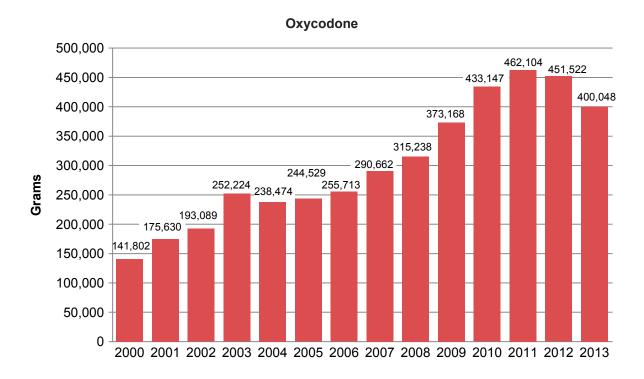
Exhibit 6a. Retail Distribution of Oxycodone and Buprenorphine,¹ by Year and Drug, in Grams, Washington, DC: 2000–2013

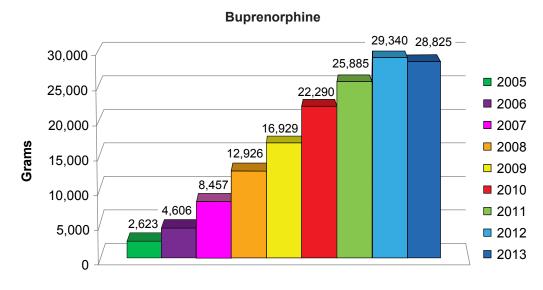




¹Buprenorphine first became available for treating heroin addiction in May 2003. SOURCE: ARCOS, DEA, Retail Drug Summaries and special data runs

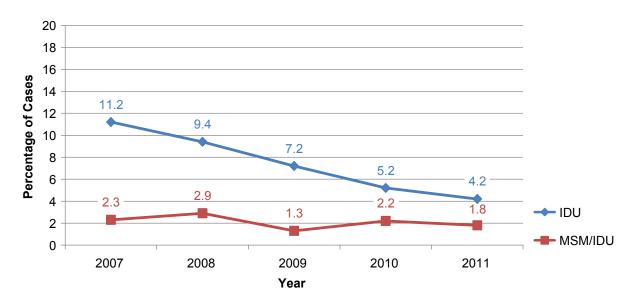
Exhibit 6b. Retail Distribution of Oxycodone and Buprenorphine,¹ by Year and Drug, Baltimore City: 2000–2013





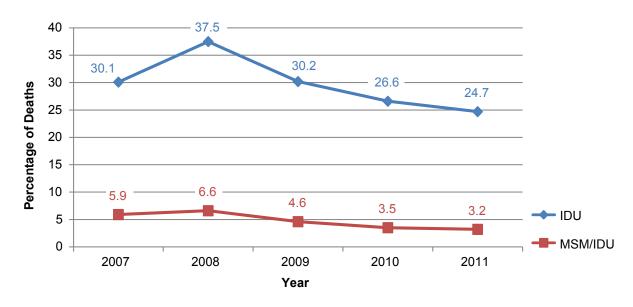
¹Buprenorphine first became available for treating heroin addiction in May 2003. Baltimore includes Zip Code™ 212. SOURCE: ARCOS, DEA, Retail Drug Summaries and special data runs

Exhibit 7a. Newly Diagnosed IDU- and MSM/IDU-Related HIV Cases,¹ as a Percentage of All New HIV Diagnoses, by Year of Diagnosis, Washington, DC: 2007–2011



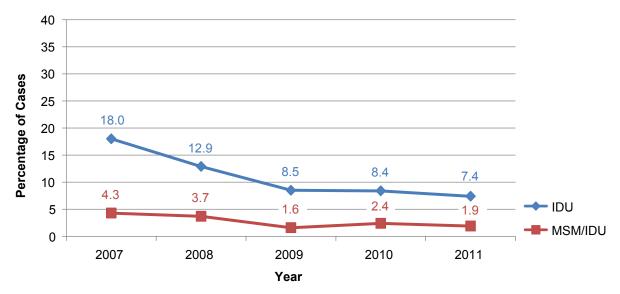
¹IDU=injection drug user; MSM=men who have sex with men. SOURCE: District of Columbia 2012 Annual Epidemiology and Surveillance Report, Washington, DC, Department of Health

Exhibit 7b. HIV Deaths among Adults and Adolescents with IDU and MSM/IDU¹ as Mode of Transmission, as a Percentage of All HIV Deaths, by Year of Death, Washington, DC: 2007–2011



¹IDU=Injection drug user; MSM=Men who have sex with men. SOURCE: District of Columbia 2012 Annual Epidemiology and Surveillance Report, Washington, DC, Department of Health

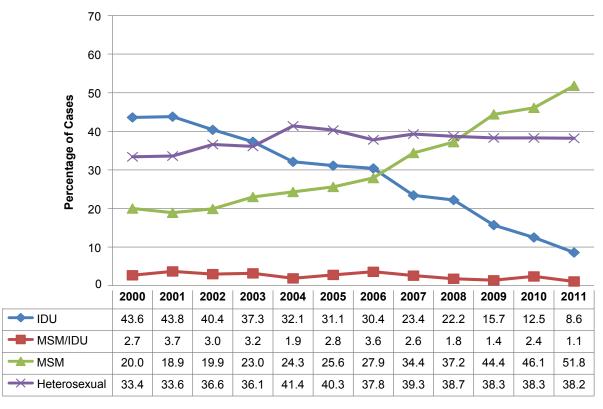
Exhibit 7c. Newly Diagnosed IDU- and MSM/IDU-Related AIDS Cases,¹ as a Percentage of All New AIDS Diagnoses, by Year of Diagnosis, Washington, DC: 2007–2011



¹IDU=Injection drug user; MSM=Men who have sex with men.

SOURCE: District of Columbia 2012 Annual Epidemiology and Surveillance Report, Washington, DC, Department of Health

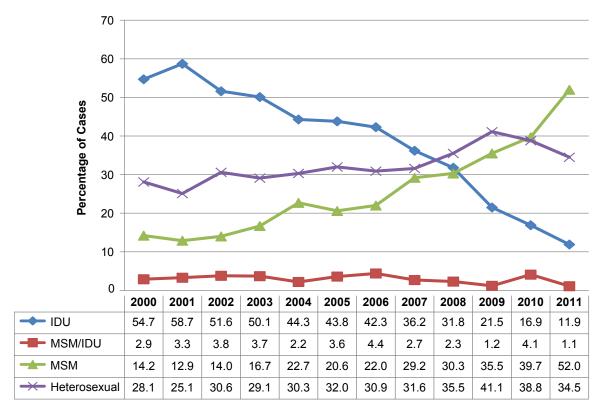
Exhibit 8a. Newly Diagnosed Adult/Adolescent HIV Cases, With or Without an AIDS Diagnosis, and with Reported Exposure Category, as a Percentage of New HIV Diagnoses, by Year of HIV Diagnosis, Maryland: 2000–2011



¹IDU=Injection drug user; MSM=Men who have sex with men.

SOURCE: Maryland HIV/AIDS Epidemiological Profile Fourth Quarter 2012, Center for HIV Surveillance, Epidemiology and Evaluation, Infectious Disease Bureau, Maryland Department of Health and Mental Hygiene

Exhibit 8b. Newly Diagnosed Adult/Adolescent HIV Cases With or Without an AIDS Diagnosis and with Reported Exposure Category, as a Percentage of New HIV Diagnoses, by Year of HIV Diagnosis, Baltimore City: 2000–2011



¹IDU=Injection drug user; MSM=Men who have sex with men.

SOURCE: Baltimore City HIV/AIDS Epidemiological Profile Fourth Quarter 2012, Center for HIV Surveillance, Epidemiology and Evaluation, Infectious Disease Bureau, Maryland Department of Health and Mental Hygiene